

DESCRIPTIONS OF NYMPHS III AND V OF *DYSDERCUS RUFICOLLIS* (L.)
(HETEROPTERA: PYRRHOCORIDAE)

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Abstract.—The third and fifth instars of *Dysdercus ruficollis* (L.) are described. Nymphs of this species have not been described previously. Bolivia is a new country record for *D. ruficollis*.

Key Words: Heteroptera, Pyrrhocoridae, *Dysdercus ruficollis*, nymphs

The genus *Dysdercus*, worldwide in distribution, is represented by 36 species in the New World. Some are serious pests of cotton. According to Loero (1947), species feed principally on *Sida* spp. When they pierce the bolls, they introduce micro-organisms which cause boll rot or a discoloration of the lint, hence their common name "cotton stainers." Many papers have been published on the genus, especially on its economic importance. Taxonomic work for the Neotropical Region are mainly those by Ballou (1906), Lima et al. (1962), and Doesburg (1968).

Among the known species of *Dysdercus*, there are surprisingly few descriptions of the immature stages. Hunter (1912) described *Dysdercus suturellus* (Herrich-Schaeffer).

The purpose of this paper is to describe nymphs III and V of *D. ruficollis* (L.). Specific determination was possible because the material studied was collected with and thus associated with adults. The record from Bolivia represents a new country record for this species.

MATERIALS AND METHODS

The material examined belongs to the following institutions: Museo Argentino de

Ciencias Naturales Bernardino Rivadavia (MACN) and Museo de La Plata (MLP).

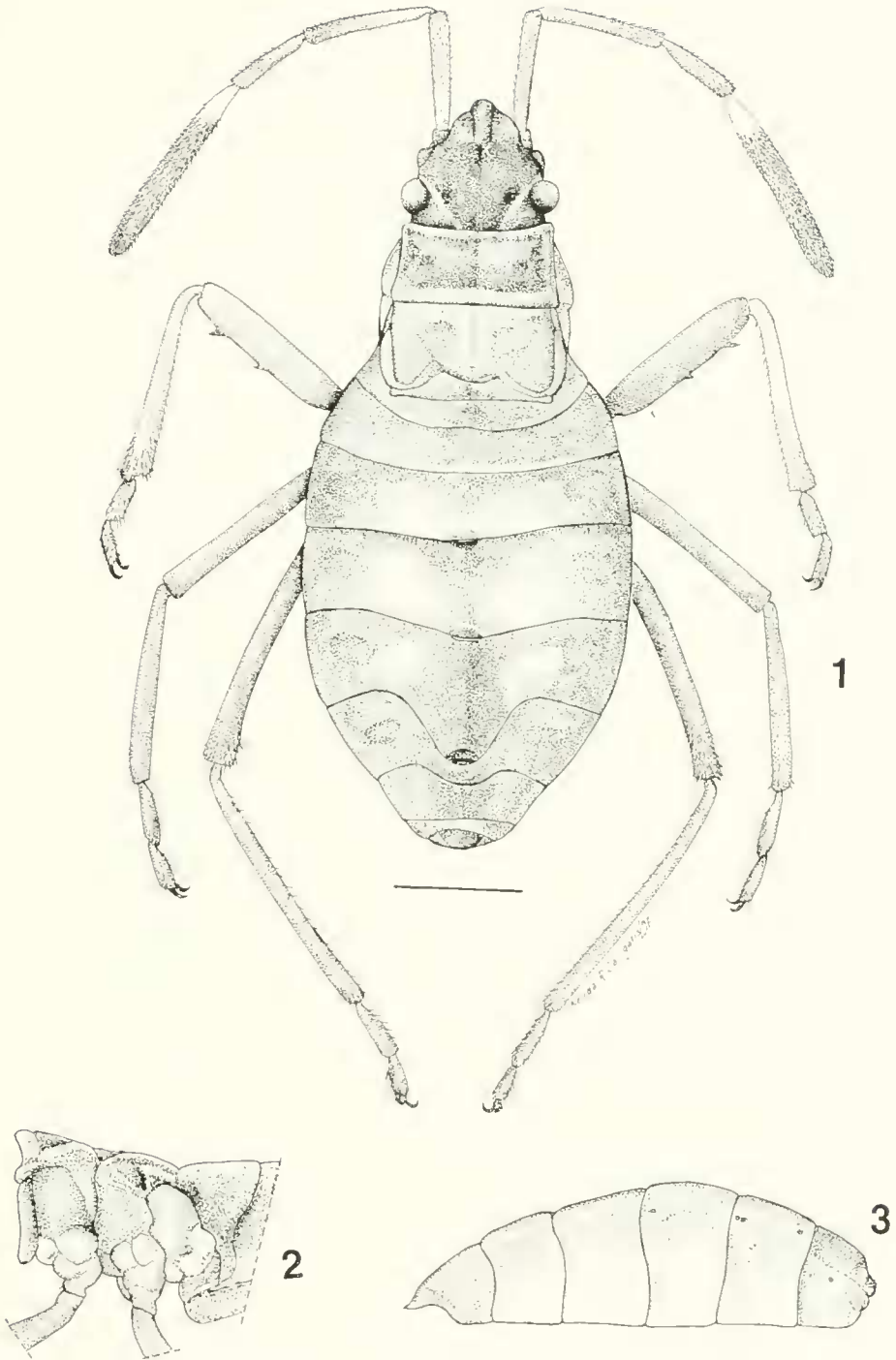
The terminology used for morphology follows Miller (1932). For the descriptions, 15 measurements were taken, and they are expressed in millimeters.

Dysdercus ruficollis (L.) (Figs. 1–7)

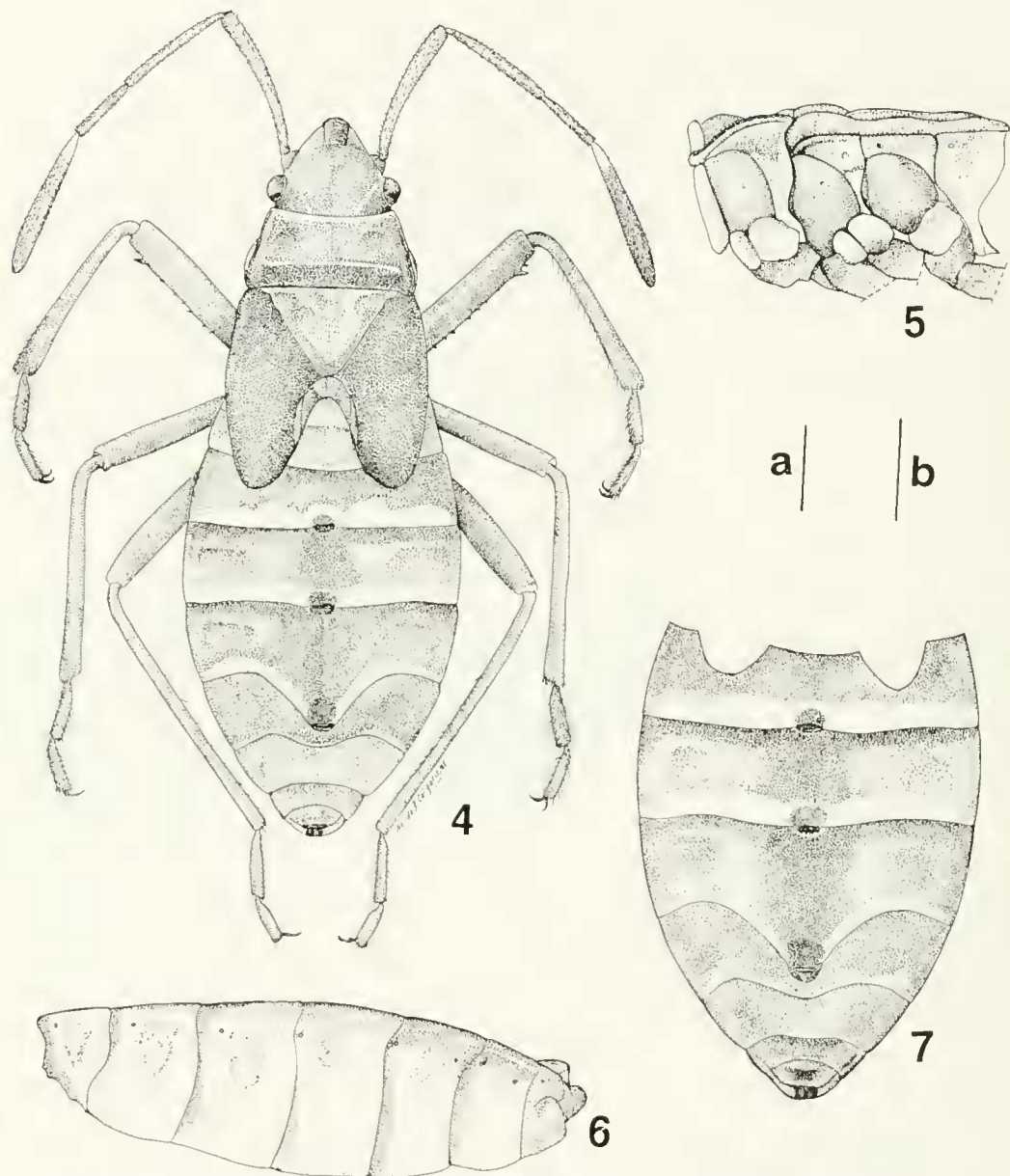
Instar III (Figs. 1–3).—Antenna dark brown; segment IV with a white broad basal ring on upper surface of basal half. Eye white with upper and lower surfaces dark brown. Pronotum anteriorly and medially brown with reddish tone, posteriorly brown. Wing pad brown. Segments 1–3 of abdomen dorsally light red, 4–5 light red with whitish stripe, 6 light red with two whitish dots, 7 red. Area around dorsal plates dark brown. Pleura as in Fig. 2. Abdomen (Figs. 1, 3) anteriorly light red and posteriorly whitish. Legs and rostrum brown. Some specimens with brownish tones instead of reddish.

Body: Length, 6.64–7.84; maximum width, 3.12–3.20.

Head: Length, 0.96–1.52; width, 1.52–1.76; eye width, 0.14–0.19; interocular space, 0.72–0.84. Antennal segment I,



Figs. 1-3. *Dysdercus ruficollis*, instar III. 1, Dorsal view. 2, Pleura, lateral view. 3, Abdomen lateral view. Scale line = 1 mm.



Figs. 4-7. *Dysdercus ruficollis*, instar V. 4, Dorsal view. 5, Pleura, lateral view. 6, Abdomen, lateral view. 7, Abdomen, dorsal view. Scale lines = 1 mm; a, Fig. 4; b, Figs. 5-7.

I, 1.36-1.6; II, 1.20-1.52; III, 0.80-0.96; IV, 1.76-2.16.

Thorax: Length, 0.60-0.67; anterior width, 0.95-1.12; posterior width, 1.12-1.28. Length of wing pads, 0.96-1.20. Abdomen length, 4.16-5.36.

Material studied: ARGENTINA: Mi-

siones, XI-1919, A. Nunez, 1 nymph (MACN); Santa Ana, III-1927, 4 nymphs (MLP).

Instar V (Figs. 4-7).—Antenna light brown; segment IV dark brown with a white longitudinal stripe on upper surface of basal half. Eye dark brown and brown,

upper surface dark brown, lower surface paler with a reddish tinge. Pronotum anteriorly white and dark brown, medially brown with reddish tone, posteriorly yellowish and dark brown, edges dark brown or light brown. Wing pad dark brown except light brown medially. Segments 1-6 of abdomen dorsally light red with whitish stripe, 7-8 transparent or not, light red or brown, external margin of connexivum of segments 1-7 light red, 9 light red or brown. Area around dorsal plates dark brown. Pleura as in Fig. 5. Abdomen (Figs. 6, 7) anteriorly light red and posteriorly whitish. Legs and rostrum light brown. Some specimens with brownish tone instead of reddish.

Body: Length, 9.60-11.04; maximum width, 3.44-4.16.

Head: Length, 1.36-1.76; width, 2.00-2.08; eye width, 0.25; interocular space, 0.92-1.04. Antennal segment I, 2.00-2.24; II, 1.68-1.76; III, 0.96-1.12; IV, 2.56-2.80.

Thorax: Length, 0.77-1.02; anterior width, 1.33-1.39; posterior width, 1.97-2.03. Length of wing pad, 2.08-2.32.

Abdomen: Length, 0.92-0.98.

Material studied: ARGENTINA: Misiones, no. 5488, 3 nymphs (MACN); Santa Ana, III-1927, 1 nymph (MLP). BOLIVIA: no. 10324, 1 nymph (MACN). BRAZIL: no. 10346, 1 nymph (MACN).

ACKNOWLEDGMENTS

I am grateful to Dr. R. Froeschner and Dr. C. Schaefer for useful suggestions and critical reading of the manuscript. I express my gratitude to Dr. A. Bachmann for supplying material for the study and to N. Caligaris for the drawings. This work was supported by the "Consejo Nacional de Investigaciones Científicas y Técnicas" (CONICET) and the University of La Plata.

LITERATURE CITED

- Ballou, H. A. 1906. Cotton Stainers. West Indian Bulletin 7: 64-85.
- Doesburg, P. H. van, Jr., 1968. A revision of the New World species of *Dysdercus* Guérin Méneville (Heteroptera, Pyrrhocoridae). Zoologische Verhandlungen 97: 1-215, plates 1-16.
- Loero, C. 1947. Lista de los principales insectos danimos a las plantas útiles que han sido determinados en el Peru por el departamento de Entomología Estación Experimental Agrícola de La Molina, Lima Peru, Apartado 2791, Divulgación Agrícola Número 9: 1-54
- Hunter, W. D. 1912. The cotton stainer. United States Department of Agriculture, Bureau of Entomology, Circular No. 149, 15 pp.
- Lima, A. M. da Costa, N. Guitton, A., and O. V. Ferrera. 1962. Sobre es espécies americanas do género *Dysdercus* Boisduval (Hemiptera; Pyrrhocoridae; Pyrrhocorinae). Memorias Instituto Oswaldo Cruz 60(1): 21-57.
- Miller, N. C. E. 1932. Observations on *Melamphaus füber* F. (Hem., Pyrrhocoridae) and descriptions of early stages. Bulletin of Entomological Research 23(2): 195-201.